

EXHIBIT 11
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HB 6

Big Hole Watershed Committee

Habitat Restoration Projects and Outreach Report



March 2005



Photo 1. Spring Creek 1, Kalsta Ranch. This spring is the origin of the longest creek (approximately half-a-mile) that flows from west to east. Cattle have trampled the spring and downgradient stream, but would be restricted with riparian fencing under proposed project.



Photo 2. Spring Creek 1. This is Spring Creek 1 down-gradient just after it leaves the spring pictured in Photo 1.



Photo 3. Spring Creek 1. An indicative stretch of Spring Creek 1 downgradient of the spring. Current conditions would be eliminated by rebuilding the stream bottom and banks and restrictive access to livestock through riparian fencing.



Photo 4. Spring Creek 1. Closer view of indicative stretch of Spring Creek 1 downgradient of the spring.



Photo 5. Spring Creek 1. Spring Creek 1 upgradient of a road with a culvert that may need to be up-sized to prevent backflow of the stream.



Photo 6. Road and culvert, Spring Creek 1. This road with culvert passage is restricting flow in Spring Creek 1. Back-flow in Photo 5 is to the right of the road pictured above.



Photo 7. Spring Creek 2, Kalsta Ranch. The road pictured above restricts natural subsurface flow from the river aquifer and Big Hole flood waters from reaching a second spring-fed stream channel located south of Spring Creek 1. Surface flows of Spring Creek 2 begin on the right side of the road and flow north to northwest before joining Spring Creek 1. A culvert or road removal is needed to restore perennial flows to Spring Creek 2.



Photo 8. Spring Creek 2. A distant view of the road restricting flows to Spring Creek 2. Spring Creek 2 stream bottom runs through the cottonwoods from left to right.



Photo 9. Spring Creek 2. Spring Creek 2 downstream from the road (to the right in Photo 7). Natural features are evident that the stream flowed prior to the road installation. Road removal or installation of a large culvert would be needed in order to restore flows.



Photo 10. Spring Creek 2. A view of Spring Creek 2 further downgradient of the road.



Photo 11. Spring Creek 2. A view of Spring Creek 2 just above its confluence with Spring Creek 1.



Photo 12. Spring Creek 1. Spring Creek 1 downgradient of confluence with Spring Creek 2 and above its discharge to the Kalsta Slough.



Photo 13. Spring Creek 1 discharge. Spring Creek 1 at its discharge to the Kalsta Slough. Note the build up of silt and debris from upgradient sources.



Photo 14. Upper end of Kalsta Slough. Upper end of Kalsta Slough where Spring Creek 1 dumps in. Area to the right is submerged under low flow periods. Restoration to a trout-sustaining fishery would require extensive dredging of built-up sediments.



Photo 15. Middle section of Kalsta Slough. A view south at the middle section of Kalsta Slough. Cattails on the right in the photo give an indication of normal-to-high water pool.



Photo 16. Lower section of Kalsta Slough. A view south of the lower section of Kalsta Slough.



Photo 17. Natural outlet from Kalsta Slough. Above is the natural outflow of the Kalsta Slough to the Big Hole River, located on the westernmost edge on the southern end of the slough, looking north.



Photo 18. Natural outlet from Kalsta Slough. Above is the natural outflow of the Kalsta Slough to the Big Hole River, located on the westernmost edge on the southern end of the slough, looking south.



Photo 19. Outlet of Kalsta Slough. Confluence of the Kalsta Slough outlet with the Big Hole River.



Photo 20. Controlled outlet to Kalsta Slough. Outlet channel from the Kalsta Slough, located east of the natural outflow, looking north.



Photo 21. Outlet culvert of Kalsta Slough. Buried in the brush is the outlet culvert to the Kalsta Slough from the easternmost channel. Culvert needs to be removed and/or replaced.



Photo 22. Dike at Kalsta Slough outlet. Looking west across a dike at the outlet of Kalsta Slough. Visible channel is the natural outflow and the culvert channel passes through the ground closest to the bottom of the frame.



Photo 23. Kalsta Slough outlet. Southwest view of the Kalsta Slough outlet. Natural outflow channel is on the right and culvert channel is on the left.



Photo 24. Kalsta Slough. A northwest view overlooking the Kalsta Slough. Spring Creek 1 enters the slough on the upper left-hand side of the slough; Spring Creek 3 enters upgradient of the large cottonwood on the right.

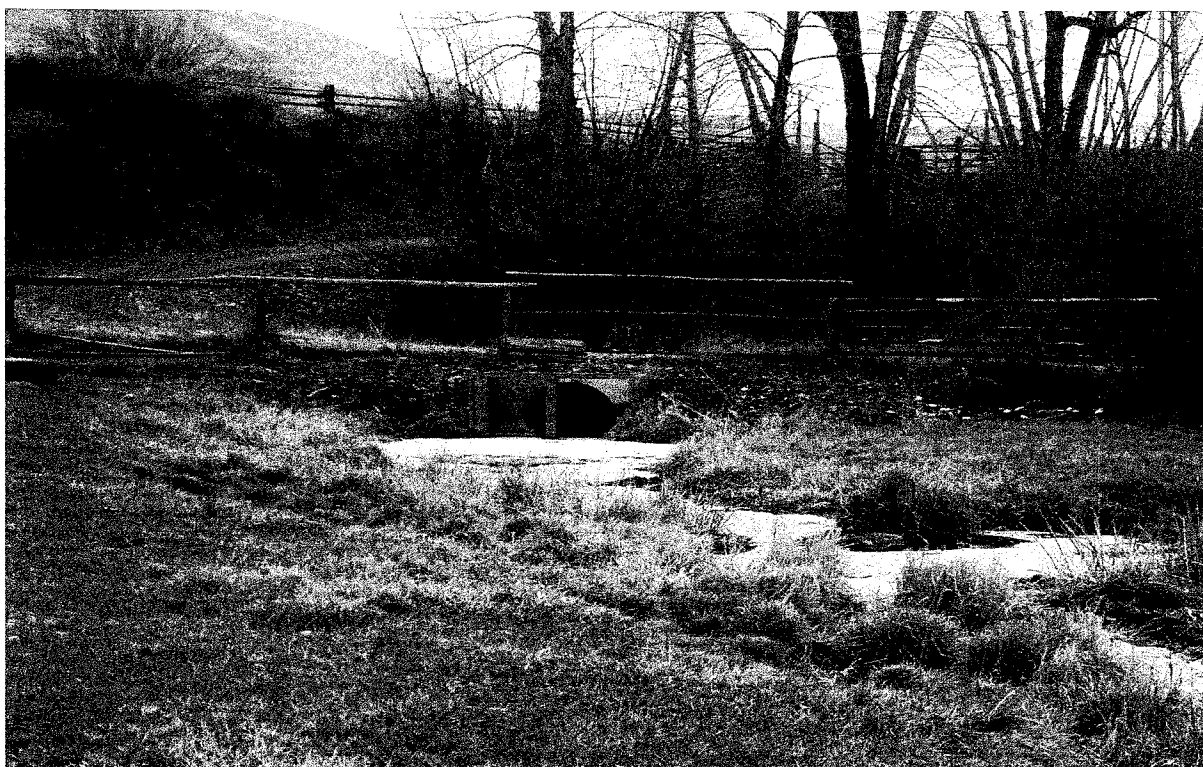


Photo 25. Spring Creek 3, Kalsta Ranch. View of Spring Creek 3 just upgradient of its inflow to the Kalsta Slough at the northern end at the bend.



Photo 26. Spring Creek 3. Wetland area on Spring Creek 3 upgradient of Photo 25.



Photo 27. Spring Creek 3. Section of Spring Creek 3 upgradient of the wetland area as it flows along the western edge of a pasture to the north of Kalsta Slough. Stream would be redefined, reconstructed and livestock access restricted with riparian fencing.



Photo 28. Spring Creek 3. View of Spring Creek 3 looking downstream of Photo 27. Culvert inlet to Kalsta Slough appears on the upper left of photo in front of the cottonwoods.



Photo 29. Spring Creek 3, culvert 2. A second culvert is installed at the northern end of the pasture to take flow from Spring Creek 3 beneath the road in the photo. Pending restoration of the stream, a much larger culvert would need to be installed.



Photo 30. Spring Creek 3. Stretch of Spring Creek 3 above the culvert crossing in Photo 29.



Photo 31. Stock well, Kalsta Ranch. This well was installed in a pasture to serve as an alternate water supply for livestock watering, but has no power source. The Kalsta Ranch would like assistance in developing a power source to the well to provide an off-stream watering source for its livestock.